

# What is a Ratio?

Name: \_\_\_\_\_

A ratio is a comparison of two quantities. It can be written in three different ways:  $a:b$ ,  $a$  to  $b$ , or  $a/b$ . For example, in the diagram below we can compare the red squares to the blue squares. There are two red and five blue, so the ratio of red to blue is written  $2:5$ , 2 to 5 or  $2/5$ .



1. The local zoo has 8 zebras. Write a ratio to show the comparison of tails to legs three different ways.



2. Zack heard a zookeeper say that there is a 4 to 1 ratio of females to males in the penguin exhibit. Describe what this means.

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3. Write a part-to-whole ratio that compares the penguins and state what it means.

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4. The zoo had a "Who's your favorite animal?" contest last week. Aslan, the lion, received two votes for every five votes for Harry the Hippo. Write a ratio that compares Harry to Aslan.

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5. Zack stopped to see the hyenas. He noticed that 3 of the 12 hyenas had darker fur than the others. Write a part-to-part ratio that compares the hyenas with dark fur to the hyenas with light fur.

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6. A sign in front of the polar bear exhibit says that the weight of a male compared to a female can be as much as  $3:1$ . What does this mean?

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7. The owls at the zoo have been known to sleep 12 hours a day. Write a ratio that compares sleeping hours to hours awake in one day.

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8. Write a ratio that compares the hours an owl sleeps to total hours in the day.

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9. When looking in the gift shop at the zoo, Zack said that the ratio of parents to children was  $3:1$ , but his sister, Ariel, says that the ratio is  $1:3$ . Can they both be correct? Why or why not?

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